

California **GARDEN**

MARCH-APRIL 1987
One Dollar
Volume 78 Issue No. 2
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***Free Floral Crafts Instruction Workshop with Colleen Winchell** every Thursday. Casa del Prado, Rm. 105, Balboa Park, 10-3 p.m. Info: 479-6433.

January 30 through February 26

FLORAL ARTISTS' Paintings on display at Hospitality House, Descanso Gardens. Weekdays 9-5 p.m.

February 3 or February 4

"Specialty Fruit Production", a non-credit class starts Tues. and Wed. at Mira Costa College. 9 til noon. No registration fee. Parking fee \$8 (senior citizen \$4). Lab fee approx. \$15. For info: Claude Sweet (286-8852) or Mira Costa College (757-2121 ext. 282)

Feb. 21, 22

Southern California Camellia Council Spring Show sponsored by Descanso Garden Guild at Descanso Gardens, 1418 Descanso Drive, La Canada Flintridge, CA, 9-4:30 p.m.

Feb. 21, 22

San Diego County Orchid Society's Spring Mini Show. Casa del Prado, Balboa Park, Room 101. Sat: noon - 4:30 p.m.; Sun: 10-4:30 p.m. Free.

Feb. 22

Wild Mushroom Fair with David Arora as guest speaker. Slide show, display of 100 species of mushrooms and identification of mushrooms as poisonous or edible. Los Angeles State and County Arboretum, 301 N. Baldwin Ave., Arcadia, CA 91006-2697. Information: (818) 446-8251. 9-4:30 p.m.

Feb. 22

Summer Garden Lecture by Vegetable Expert, Sid Horton, and Flower Expert, Gloria Rice, with tour of volunteer garden. South Coast Botanic Garden, 26300 Crenshaw Blvd., Palos Verde Peninsula, CA 90274. Information: (213) 772-5813. 2 p.m.

Feb. 22

FREE Two-Hour Botanical Tour of the San Diego Zoo by OFFSHOOTOURS. The botanical collection boasts over 6,000 species. Reservations are required. Call 297-0289.

Feb. 25

Xeriscape Symposium at Descanso Gardens. 7-9 p.m. \$10.00. Call (818) 790-5414 for reservations.

Feb. 28

"Hands on" Basket Weaving Workshop featuring plaited basketry, similar to cross-cross weaving by **Betz Salmont**, an instructor at Santa Monica City College. Held in Van de Kamp Hall. Enrollment is limited. Fee \$25.00. 9:30-3:30 p.m.

Feb. 28, Mar 1

OHARA School of Ikebana Show, Casa del Prado, Room 101, Balboa Park. Sat: 11-4:30 p.m., Sun: 10-4:30 p.m. FREE.

March through July

Artist, Writer, and Garden Designer, Karen Kees' "California Cottage Garden" will be open. Tuesdays, 1-3:00 p.m. at 12819 Selma Court, Poway, CA 92064. Guests are welcome.

Mar. 1

Bromeliad Slide Presentation by Stan Oleson on "Botany of Bromeliads". South Coast Botanic Garden, 2 p.m.

***Mar. 4, 11, 18**

Flower Arranging Class with Martha Rosenberg. Casa del Prado, Balboa Park. Reservations: Marie Walsh 298-5682.

Mar. 7 through April 19

Alice Menard's Garden open for visitors. Fri.-Sun. 10 a.m.-3 p.m. Closed Mon-Thurs. Admission \$3.50 each. 13027 Mapleview St., Lakeside, CA. (619) 443-2400.

Mar. 7 & 8

Arbor Day at the Wild Animal Park

Mar. 7 & 8

Sierra Madres Council Girl Scout Flower Show celebrating 75 years of Girl Scouting in the United States. Los Angeles State and County Arboretum, Arcadia. Sat: 11:30-4:30 p.m.; Sun: 10-4 p.m.

Mar. 7, 8

San Diego Daytime African Violet Society's 6th Annual Show. Casa del Prado, Room 101, Balboa Park. Sat: 1-5 pm., Sun: 10-4 p.m. Free.

Mar. 8

African Violet Presentation and Sale. South Coast Botanic Garden. George Crouchet and Ralph Bredon will discuss culture. 2 p.m.

Mar. 11

Xeriscape Symposium at Descanso Gardens. \$10.00. Call (818) 790-5414 to reserve a place. 7-9 p.m.

Mar. 13, 14, 15

San Diego County Orchid Society's 41st Spring Show at Scottish Rites Memorial Building, Mission Valley, San Diego, CA. Preview Fri: 7-10 p.m., Show Sat: 9-9 p.m., Sun: 9-5 p.m. Admission \$3.00.

Mar. 14

Seventh Annual Environmental Education Fair at Los Angeles State and County Arboretum, Arcadia 9-4 p.m.

Mar. 14, 15

31st Annual Daffodil Show hosted by Southern California Daffodil Society at Descanso Gardens, La Canada Flintridge. Sat: 2-4:30 p.m., Sun: 9-4:30 p.m.

Mar. 21, 22

19th Anniversary Flower Show by Ikebana International, San Diego Chapter at Casa del Prado, Room 101, Balboa Park. Demonstrations of flower arranging each day from 1-3 p.m. 10 schools will present 60 arrangements. 11-4:30 p.m. Free.

Mar. 22

Landscaping Slide Show. Landscaper Richard Jark will show "How to Approach Your Home Landscaping". South Coast Botanic Garden, Palos Verdes Peninsula, 2 p.m.

***Mar. 25, Apr. 8, 15**

Flower Arranging class with Adrienne Green, Casa del Prado, Balboa Park. Reservations: Marie Walsh 298-5182.



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COVER

Nella Dorman Cruse, an accredited artist who appreciates the beauty found in Balboa Park, painted this lovely scene not far from her shop near the entrance to Spanish Village. Stop by at Studio 38 to see more of her paintings and to meet this friendly, interesting, and talented person.

New books donated by publishers, authors, or friends, are reviewed by Mary Lou Orphey, our Book Reviewer, and then placed in the horticultural library of the San Diego Floral Association. We welcome new books and hope you will come in to read them. The library is located in room 105, Casa del Prado, Balboa Park, San Diego. It is normally open from 10 a.m. until 3 p.m. on weekdays. It is closed on weekends and holidays. The librarian is available on Tuesdays. The library contains many old, rare, new and interesting horticultural books plus a complete set of California Garden magazine from 1909 up to the present issue. Also, we have some horticultural magazines, including some in Russian and in Hebrew languages. The library card file is being put on the computer for reference. Also, a copying machine was recently purchased for the library.

Each year in the July/August issue of California Garden, we publish a free listing of garden clubs which are not affiliates of San Diego Floral Association. If you want your garden club to be listed free, submit the name of the club, name, address, and telephone number of the President of the club, and time and place of meeting, no later than March 15, 1987.

The deadline for horticultural events and ads for the next issue is March 25, 1987.

For only \$25.00 a year, a professional business relating to horticulture can become a member of San Diego Floral Association and be listed in each issue of California Garden magazine as a "Professional Affiliate". This listing would include name, address and telephone number of the business. It is a wonderful opportunity to reach gardeners.

We welcome articles which are both informative and interesting to California gardeners. Persons who furnish article, front cover, photos, sketches, or pictures used in the magazine will be entitled to up to 3 copies of the California Garden magazine containing their contribution, in appreciation. Since we are a non-profit organization, no fees will be paid for articles or pictures. Submit articles double or triple spaced, and include postage if you desire to have your article or photos returned.

The policy listed above was approved by the Governing Board of the San Diego Floral Association on 2 August 1985 and is effective immediately, unless otherwise noted above.

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Under the sponsorship of the Park & Recreation Department, City of San Diego

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561-4192

8124 Royal Park Lane

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CHAPTER 119

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Mass Appeal

By All-America Rose Selections (AARS)

When deciding what and where to plant in your yard this spring, remember the sense of exuberance that can only be found in numbers. No denying, of course, that one grand plant doesn't have its own form of impact, but we're talking IMPACT here. The bright, bold splash of color that gives anyone seeing it a feeling of joyousness is the result of planting a substantial number of just one variety. People have been doing it for years with petunias and geraniums, and now the same technique is being used with roses.

The University of California-Riverside and the Galloway Gardens resort complex in Pine Mountain, Georgia, offer just two of many examples of commercial use of hundreds of roses in median-strip plantings. Longwood Gardens in Kennett Square, Pennsylvania, has created an enchanted world by surrounding its large herb garden with a hedge of the rugosa rose BLANC DOUBLE DE COUBERT.

Luckily, it is not necessary to use hundreds of plants in our own yards to have an effect. Sometimes only five or seven plants of one rose variety surrounding the mail box or clustered at the corner of the patio are enough. Not to say, however, that there's anything wrong with being a little daring. To overcome that fear of going out on the proverbial limb, albeit one with beautiful flowers at the end, the best way to begin is with a hedge of roses.

As a landscape element, hedges may fulfill any of several purposes. They can shelter and serve as windbreaks; form screens and enclosures for privacy or shutting out an unpleasant view; define areas in the landscape; and soften other architectural elements with natural texture and color.

Although some of the larger-growing, old-fashioned shrub roses may serve the first two purposes of a hedge, it is any number of the more readily available, everblooming modern roses that really shine in lending definition, texture, and color to the landscape.

Most notable is a new variety called BONICA. Here is a hardy shrub of unusual ornamental appeal that also happens to be a rose. An All-America Rose Selection (AARS) for 1987, BONICA makes a particularly useful broad hedge and low screen. When planted in a single row on 2-foot centers, it will be dog-tight and teenage-proof by the end of the second growing season. In Zone 7, it will be a solid four feet high and almost five feet across by the end of three seasons. It will even grow vigorously much further north.



Always a mass of pastel pink from bottom to top in June, there is almost continuous bloom on BONICA through the summer to hard fall freezes. By late September, usually into November, there can be a mix of orange-red seed hips and occasional iridescent rich pink bloom. All this against the deep green, glossy, disease-resistant foliage.

Many of the floribunda and grandiflora roses also make attractive, short-growing, dividing hedges in the garden. Consider using another 1987 AARS, the tangerine-colored grandiflora NEW YEAR. A taller-growing grandiflora that branches and blooms well is the red-and-white HONOR. SHREVEPORT, WHITE LIGHTNIN', and QUEEN ELIZABETH also do well.

Floribundas that rate high marks for hedges include the brilliant scarlet SHOWBIZ, orange-red IMPATIENT, deep plum INTRIGUE, bright yellow SUN FLARE, ivory FRENCH LACE, coral-orange MARINA, and shell-pink CHERISH.

Plant bushes either in a single row 24 inches apart, or, for a thicker hedge, plant a staggered double row with 24 to 36 inches between each plant and 18 inches between each row. Prune the bushes very hard the first year in order to encourage branching from the base.

One of the most effective ways to use roses is in combination with an evergreen hedge or shrub border. Evergreens in and of themselves, can be rather somber, but the contrast they provide with roses is stunning.

Roses, whether massed in hedges or more informally planted on a slope, bordering a walk, flanking a driveway, or softening a foundation, can create an area of eye-stopping beauty in your yard this year.

To learn more about growing roses as well as the many public rose gardens to visit, there is a free brochure available. To receive a copy, send a stamped, self-addressed, 4x9-inch envelope to Discover the Pleasure of Roses, Route 1, Box 740, Palmyra, IN 47164.

WHERE CAN I PLANT ROSES?

WELCOME
TO THE WORLD
OF ROSES



Roses Are For You

By All-America Rose Selections (AARS)

You are about to acquire your first rose plants, and are doing so with some fear and trepidation...because you've heard the old wives' tales about how tough it is to grow roses. You've been led to believe that not only green thumbs but fingers and toes, as well, are a prerequisite for the care and enjoyment of these fine flowers, which have been celebrated in verse and song since early history.

T'aint so! At least not any longer.

Roses have been around for centuries...("The desert shall rejoice, and blossom as the rose." Isaiah 35:1)...and all that time people have enjoyed their beauty and fragrance.

Human nature being what it is, we humans had to improve on nature. Naturally, we had to make the rose prettier and more fragrant. But in the beginning we didn't always make them tougher when we monkeyed with their genes!

Thanks to the work of hybridizers and rose growers the world over and to organizations such as the All-America Rose Selections (AARS), there now are hardy rose plants that can be grown in all 50 states, although not necessarily in all climatic conditions found in some of the states.

We will tell the beginner, however, that growing roses is a lot like raising kids...the more TLC (tender loving care) they get, the better they turn out.

As in rearing kids, there are a few tricks to raising healthy, beautiful roses.

Follow these AARS tips, and you'll echo these words of William Wordsworth: "The rainbow comes and goes, and lovely is the rose."

SAN DIEGO'S LARGEST NURSERY FACILITY

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ANYWHERE THAT:

1. Provides at least five hours of sunlight a day.
2. Offers good drainage...roses don't like wet "feet," especially in the winter.
3. Presents no competition from trees or shrubs for either sunlight or soil nutrients. Remember, too, that rose roots spread as wide as the plant is tall.
4. Allows for proper spacing of bushes. (See planting chart.)
5. Is far enough from buildings that water/snow/ice falling from eaves/gutters won't damage bushes.

SOME FOR INSTANCES:

1. Tree and bush roses planted along driveways and walks enhance property entrances. Low-growing Floribundas are best near street and sidewalk intersections so the traffic view is not blocked.
2. Roses, both bush and climbers, should be considered for door step plantings and to soften the lines of fences and privacy screens.
3. Subject to the limitations listed above, all border problems can be solved with rose plantings, including instances where a hedge of 5-6 foot rose bushes may be desirable.
4. Roses are used successfully in all manner of patio plantings, as well as for decorative spots of color around swimming pools, play areas, bird baths, sun dials, etc. Also handy for child and dog control!
5. Roses are frequently used as foreground plantings in front of hedges and groups of evergreens, and also to provide color among spring blooming shrubs that provide a back drop of varying textures of foliage, but no color, during the summer.

ANOTHER FOR INSTANCE:

Roses can be grown in containers, too, and thus may be enjoyed by the apartment and condominium dweller who has a balcony or entrance porch that receives sufficient sunlight, and by the inner city dweller having limited garden space.

Containers must be of adequate size and drain well. A rule-of-thumb measurement is 24 inches in diameter or width by 14 inches deep, other than for miniature roses where adequate measurements are 8 x 6 inches. If more than one plant is planned in a planter box, adequate space must be provided between plants. (See planting table.) Two other factors — winter weather and the plant's thirst requirements — also must be considered before launching a "tubby" rose garden. In areas of medium to severe winters it will be necessary to guard your container roses against freezing. In areas where the temperature drops to 20 degrees or lower, roses in small containers can be dug into your garden up to the lip of the container and retrieved in the spring. If your roses are in large containers or planters and you are going to have to move them, we suggest you guard against back troubles.

Hey, It's Plantin' Time!

By All-America Rose Selections (AARS)

Thought we'd never get you here? You have read folders, maybe looked at the pretty pictures in the rose catalogues, and have your plants. You're ready and so is the weather.

You are planting bare root or packaged plants? It's a good idea to soak the entire plant for 3-4 hours in lukewarm water.

Company just drive up? Maybe they are staying, like 3 or 4 days. It's not to worry. Open the cartons and plastic wrappers or sacks. Sprinkle the plants lightly with water. Put them back in the plastic and carton. Store in a cool place (34 to 50 degrees).

Storm moving in and it looks like rain for days? Don't panic. Dig a trench in the garden. Take the plants from their cartons and wrappings. Lay them horizontally in the trench and cover with 6 inches of soil. Keep the soil moist ... **not** wet.

What if your roses came in the new plantable boxes or in pots? No problem. Just keep the planting material in the box or pot moist and store it in the 34-50 degree spot.

PROMISES, PROMISES, PROMISES

We'll deliver on a promise made earlier, and you can do the same by making a to-scale sketch of your planned rose bed ... the sketch you've been promising yourself to make.

The planting distance chart below is for guidance, not an edict from upon high. Now for some words of caution:

Remember, the longer your growing season the larger your bushes will grow and, your available space is the controlling factor. Well, now, just to keep your eyes from being bigger than your garden, remember, too, that the closer together you plant your bushes, the more pruning you must do to keep them under control.

Here's our promised planting chart:

If your winter temperature reaches	Space Hybrid Teas and Grandifloras	Space Floribundas
	this far apart	this far apart
20° to 0° & below	... 24-30" 18-24" ...
30° to 20°	... 30-36" 24-30" ...
Over 30°	... 36-48" 24-30" ...

Tree Roses should be spaced three to five feet apart. Miniatures, being a good deal smaller than even Floribundas, can be spaced 10 to 18 inches apart depending upon the variety.

HOORAY, THE DAY HAS ARRIVED!

Company's gone; the rain has stopped; your bushes are soaking; you've prepared your soil by spading 18 inches deep and adding lots of humus. The robins are fighting to get at all the good chow.

You are ready to plant!

For each plant dig a hole 15 to 18 inches deep and as wide. Check your soil one last time. If, when you make a ball of it, you are reminded of a hard, wet snowball, you'll need more humus. You can add peat moss to the soil you're going to put back in the hole. If the ball falls apart, as if made of dry snow, it is too sandy or too loose. Mix in some clay. The ball hangs together, but you can easily pick chunks off with your finger? Just right.

Under no circumstances add any commercial fertilizer to your soil mix.

ON YOUR MARK, GO!

Oh, we heard you. Your roses came in plantable boxes? Follow the directions on the box. When you prepare the hole pack the soil under and around the box so it won't shift when the plant is watered in. If the instructions fail to mention it, we suggest short, vertical slits be cut in the sides of the box. This enables roots to grow out into the soil more quickly.

Another rose came in a pot? Dig a hole slightly larger than the pot or container. Carefully remove the plant and soil ball from the pot. Set it in the hole with the bud union at the proper position for your climate. Pour soil mix in around the ball until the hole is about three quarters full. Fill the remainder with water and allow it to soak in. Finish filling with soil and firm it gently so as not to break the soil ball. Water frequently because the soil ball will tend to dry out quickly until the plant becomes well established. Fertilize when vigorous growth starts.

NOW FOR TENDER LOVING CARE

Your plants are in the ground and you can put RG after your name. Stands for Rose Gardener.

But your fun has just begun. Remember, your plants need TLC.

This care can be broken down to these call letters -- WFSP. Stands for watering, fertilizing, spraying and pruning.

Regardless of where you live and what the climate is, your plants require attention in each of these areas. However, your climate, length of growing season, soil conditions, etc. play a role in rose growing. Therefore, the following advice is general, and you are advised to read or consult with successful gardeners in your area.

WATERING — If you dug up an established rose garden, you would be amazed at the size of the fine feeder root systems as compared with the tops of the plants. This root system is very efficient as long as the plant receives adequate water. A rule of thumb would be five gallons per plant,

per watering. If you live in Quillayute, Wash., one of the "rainiest" spots in the U.S., in the summer a watering every four weeks might do the job. But in Tucson, Ariz., it might be every four days. So, talk to your local garden editor or consult a rose growing neighbor.

FERTILIZING — Although roses thrive on balanced fertilizers high in phosphate and minerals, feeding in early spring and again in mid-summer is often adequate. Some in the more temperate southern climates like to apply commercial rose food every six to eight weeks. Too much fertilizer can reduce the vibrancy of the color and late fertilization can even result in a reduction of hardiness.

SPRAYING — Every area, bar none, has its share of fungus problems and its own special creepy, crawly critters that love to gnaw on rose plants. Control these by applying rose food with added systemic pesticide or by spraying. The best time to spray is early in the morning or within 24 hours after watering. Use a spray recommended by your garden store. Generally, you'll find it has a double whammy spray manufactured to handle both fungus problems, and the pests. Spray ALL over the plant and on the ground around it. Frequency of spraying will depend on several factors. Seeking local advice is suggested, although you'll know it's time when the critters have taken over.

(Note of interest — Rose hybridizers are coming up with tougher and tougher plants. Future AARS selections may not have to be sprayed at all! Simultaneously the chemical manufacturers are producing increasingly improved fungus/critter controls that need be used only three or four times a year. Stick around to see who wins the race.)

PRUNING — Beginners frequently are scared by this word. Needlessly, for there are rose plants around that have never seen pruning shears. They aren't the finest in the neighborhood, but they are still alive. Pruning is not difficult and its basic purpose is to keep the plant healthy and producing top grade blooms, while also providing special seasonal care. Obviously you will remove dead or dying canes, will limit the number of canes to those that are the healthiest, remove growth in the center of the plant and control the height and shape. Cutting your blooms is a beneficial part of the process.

QUESTIONS YOU WERE AFRAID TO ASK

CAN I TRANSPLANT ROSES?

Yes, if done during the dormant season. If completely dormant, the plant can be moved bare root and handled as such. Otherwise, prune the canes back to 12-18 inches and, if the plant has been in the same location for some time, stand by for some back-breaking work. You must save most of the root structure and that means taking a clump of dirt at least two feet in diameter around the plant and about 18 inches deep. The hole that is to receive the plant must correspond in size.

Frankly, figuring your labor at 25¢ an hour, you might be better off to purchase new plants.

CAN I PROPAGATE ROSES FROM CUTTINGS?

Yes, but you must remember that the newer roses are protected by patents. Also, modern roses, unlike some of their ancestors, simply don't lend themselves to cutting propagation. Only a few of the cuttings will root and plants from cuttings are often weak and produce inferior blooms. Definitely not worth the effort.

HOW SHOULD I CUT MY PRETTY FLOWERS?

Carefully. Use a very sharp knife or shears. Cut about $\frac{1}{4}$ inch above a leaf. Leave at least two well developed leaves on the branch between the cut and the point where the branch joins the cane. This allows the branch to grow quickly and provide another quality bloom. Early in the morning cut partly opened flowers, in the evening take half opened buds. Put the flowers in warm (about 100 degrees) water at once. As the water cools, keep the flowers in a cool place such as a refrigerator for several hours. Then recut the stems to desired length before arranging. Blooms treated this way will outlast those used immediately after cutting.

CAN I GROW EXHIBITION ROSES?

Well now, for a beginner, you're ambitious! But, yes, you can. Seriously, if you have selected AARS plants you have made a good start. We suggest you contact the American Rose Society in Shreveport, Louisiana for information on rose shows and how to exhibit your specimens. Enter the shows — it's fun.

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Outdoor Living With Ivy

By Patricia Wellingham-Jones

This article explores ivy's usefulness in creating the garden best suited to your outdoor-living needs. Most of the ivies mentioned grow in gardens of the author and friends, thus are first-hand observations of actual experiences.

It is August, the summer drags on in waves of heat, and people move outdoors for a comfortable place to sip something cool and catch their breath. More and more are turning to gardening for hobby and refreshment; gardens come in a variety of styles; and ivies can be useful parts of the landscape scheme.

On the Ground

My first memory of San Francisco, the one that started my lifelong love affair with that city, is of a Sunday morning in late April. I had been in the city only one day and was brunching with friends in the tiny garden outside their apartment. We sipped champagne, nibbled sourdough French bread with orange marmalade, and watched the fog drift back out to sea, leaving a freshly washed blue sky with a beach picnic in our future. Fuchsias draped over fences, birds darted and sang, the flower border was gaudy and fragrant.

It was instant conversion; another Californian was born. The joy of outdoor living has been with me ever since.

Urban Problems

The urban gardener faces unique challenges; air pollution kills plants as well as damages people. Ivy is tolerant of smog; other resistant plants are privet, oleander, camellia, azalea, and ginkgo. Wind roaring through manmade canyons tears plants to shreds and brings tears to the eyes, literally and figuratively. Ivy, with its hardy root system, yielding nature, and aerial rootlets for clinging, survives in this setting, as do holly, boxwood, euonymus, pyracantha, geranium, and coloneaster. Those same canyons prevent sunlight from penetrating to city streets and backyards much of the day, forcing gardeners to use shade plants. Which plant is a natural first choice? Ivy, of course.

These challenges mean that advance planning of the garden is crucial. You must inventory the available space, often miniscule. Carefully consider the areas. Are there vistas worth keeping? If there is a view, frame it. If the only view is of concrete or brick walls, develop the interest within the garden, with statuary, ponds, focal points; use the walls as backdrops for your own private

stage set. How does the light enter your space? Is there wind to control? Remember that the urban garden serves more than groundlevel occupants. Surrounding windows look down from above, so the garden should be enjoyable from several vantage points. Your goal is harmony, not hodgepodge, so use the basics of all good design; scale, proportion, unity, and rhythm.

The hardier ivy cultivars such as 'Harrison', 'Pittsburgh', 'Deltoidea', 'Arrowhead Sagittaeifolia', 'Glacier', do well in these situations. An ivy espalier provides year-round visual interest. Train it on plastic rope nailed in diamond, or other patterns on a solid fence or wall. Periodic shaping with

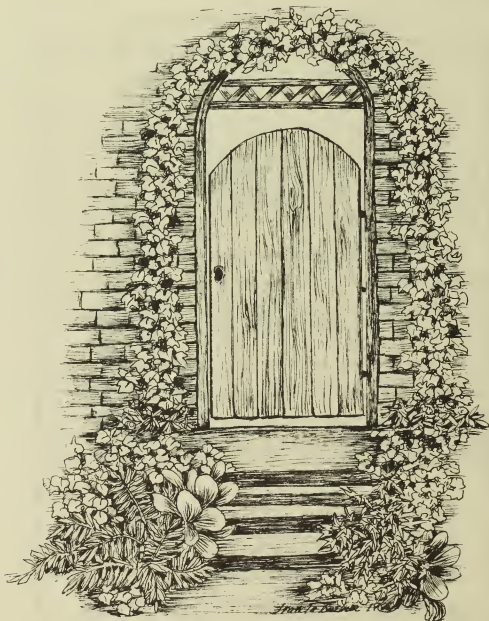


ILLUSTRATION BY FRANCIA BARBIER

a cordless trimmer keeps it from straggling. A low maintenance courtyard could feature ivy walls and floor, with table and chairs on a brick patio and flower color in pots.

Garden Privacy

The privacy needed to fully enjoy the outdoor room can be achieved in many ways. The city garden uses small trees and arbors to block overhead views. Tight-space seclusion results from trellises clad in ivy and flowering vines. One of the joys of ivy is that it covers such a multitude of sins while needing so little space.

Trees are traditionally used for privacy. One or two large maples, sycamores, or coast redwoods block specific views. A grove or cluster of smaller trees creates a leafy screen. Those with a narrow spread or upright habit work best by conserving plant space. They do not become focal points. A row of small trees, such as hawthorn, crabapple, flowering plum, creates a hedge effect. Semi-dwarf fruit trees yield a tasty harvest as well as spring blossoms.

Walls provide the most privacy of all, form a background for interesting effects, and are an ideal base for the ivy collection. Contrary to popular belief, ivy will not destroy a sound wall. Sound is the key word. A wall in good shape, with mortar well sealed and stones or bricks tightly in place, will be a safe foundation for ivy. An already crumbling wall, however, is not helped by ivy.

Fences, gates, and screens are as varied as their owners. The important considerations are purpose and location, then style. The structures must be functional and fit the scale and tone of the surroundings. They are good foils for ivies, and for fountains.

Entrance Gardens

Entrance gardens provide a wide open welcome to the home, or serve as outdoor rooms when space is at a premium. The principles remain the same. The path to the front door must be clearly defined, well lighted, and unobstructed. When used for family living, the entry garden is usually enclosed for privacy. Walls, fences, screens or baffles are all popular. Courtyards intrigue passers by and attractive gates set off both house and garden. Ivy topiaries at the base of gateposts proclaim the uniqueness of the garden within. 'Ingobert', 'Shamrock', and 'California' are excellent choices for topiaries; 'Calico' is stunning in its ruffly green and white; and the little ivies, 'Tribairn', 'Irish Lace', 'Christian', and 'Plum d'Or', are harder than once believed.

Open front gardens seem more spacious with a small section of lawn or groundcover bordered by drifts of flowers, and trees or shrubs as vertical accents defining the property. There are books on how to landscape such gardens, ideas abound, and anything that feels and looks good to the owner is acceptable. The thing to keep in mind is city and county ordinances about fence heights, setback distances, wire and water regulations.



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Side Yards

One of the most neglected areas of the house site is the long, narrow, usually dark and cluttered, side yard. Because of the shade, when this area gets planted, it is generally with all green foliage; hostas, ivies, ferns, etc. Green does not have to mean drab. By varying shapes and textures an interesting garden can be created and the introduction of variegated plants adds subtle color to lighten the scheme. Ivies with golden tones include 'Nice Guy', 'California Gold', 'Goldstern', and 'Goldcraft'. White or cream and green ivies are 'Sinclair Silverleaf', 'Stift Neuburg', and 'Sagittae-folia Variegata'. Those with gray, white, and green shadings are 'Ingrid', 'Glacier', 'Ingobert', and 'Curvacious'.

Placement of a small deck or patio can turn this otherwise forgotten space into a cool retreat on a hot, sunny day. It becomes a graceful link between front and back gardens. Doesn't it make more sense for people, rather than garbage cans, to use this aisle between house and neighbor?

Backyard Gardens

This is where most of America's outdoor living takes place. The important things in planning this space are the family's needs for sitting and lounging, children's play, entertaining and cooking, and utility areas. The design principles of scale, proportion, unity, and rhythm are part of the planning stages. Remember to put plants needing the most water and care nearest the house, for

practical water management; the ones you especially enjoy are, also, the ones that could go nearest the house and sitting areas. Flowering plants attract bees, a mixed blessing; good for pollination, bad for picnics and allergic reactions. Massing plant material, and repeating it, is generally more attractive than spotting plants at random throughout the yard.

Patio and Terrace

The handsome paved floor of a terrace and the concrete slab patio of the standard suburban home create additional living space with few maintenance requirements. The simple ones are well within the skills of the average gardener depending, as they do, on adequate seating arrangements in a comfortable environment with splashes of color or texture in small spaces or planters.

If a choice must be made between a scrap of lawn or a patio, I prefer the patio for its versatility and usefulness. A patio or terrace invites you out, the lawn simply invites you to look. And fertilize, and pull weeds, and moan about gophers, and spend time and water...

There are a few things to consider about patios and terraces. Nature must be modified for comfort; winds need buffering, direct sun needs shading. Paving must withstand weather and traffic, be comfortable and safe to walk on while allowing for drainage. Trees must have good manners, no dropped fruit or messy leaves. Small and rather slow-growing ones prove best, with no roots to



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lift pavement or invade flower beds, and they should be attractive and provide pleasant shade. Lest this seems impossible to find in one tree, here are some that, while not perfect, are rated as good; Raywood ash, 'Autumn Gold' ginkgo, crape myrtle, purple-leaf plum, ornamental pear, Japanese maple, flowering dogwood, crabapple, Japanese pagoda tree.

Decks

To a Californian, life without a deck is barren indeed. There is something mysteriously satisfying about a wooden platform floating above the earth, even if only by the height of the two by four supporting it. Decks are multipurpose creations; they convert drabness, make a sloped or uneven yard usable, add to the resale value of the house, and provide a display area for choice furnishings and plants. How-to manuals encourage the thrifty homeowner or budding woodworker to create his own modern veranda, leading to year-round pleasure and satisfaction.

Whether your deck is simple or elaborate, chances are you will use container plants on it. These can be in the form of architectural structures, such as trellises for shade or overhangs for privacy with flowering vines and ivies. They may be individual boxes with specimen plants as focal points. Or they may be pots massed according to size, color, and shape. Maybe you will display your collection of flowers or succulents or ivies. You may grow your gourmet edibles handy to the kitchen

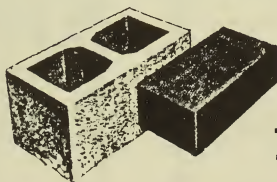
door. Perhaps you will overcome backyard problems with mini-landscapes up close.

However you use planters on your deck, the principles of good care remain the same. Container gardening takes almost daily care and attention, though it is less physically demanding than traditional gardening (a major point in its popularity, especially with the elderly or impaired). You must consider the amount of daily sunlight, and remember that most vegetables and many flowers require at least six hours per day. Select the proper container for the plants; at least nine inches deep for vegetables, shallower for succulents, roomy and deep for multiple plantings. Assure good drainage by making sure the holes in pot bottoms are adequate. Commercially prepared potting mix seems to work best, thus avoiding the bugs and fungi found in garden soil. Plants in containers are chronically hungry. Replace nutrients leached away in the frequent waterings by feeding often; every one to three weeks with liquid fertilizer or at planting time with slow-release forms. Because pots are small and surrounded by air, they dry out quickly. Check often, water when needed; early morning is best.

Choose adaptable varieties of plants, ones that grow well in containers or unusual situations. Ivies are ideal planter subjects, whether you want trailing vines, large filler material, striking year-round foliage, or accent plants. They can form pyramids eight feet high for use as dividers (try 'Gold Heart', 'Imp', or 'Anne Marie'), spill delicately

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down a bamboo screen ('Tribairn', 'Ingrid', or 'Marie Luise'), or form a tiny garden with colorful annuals and dwarf conifers ('Gold Craft', 'Lalla Rookh', or 'Chester').

Decks and containers combine the best of many worlds; year-round outdoor living with attractive, manageable gardening.

Birds in the Garden

Birds provide the finishing touch to life in the garden. Their trills and squabbles provide a neverending source of entertainment and education. For those who wish to entice feathery friends, there are some necessities. Banishment of the neighbor's cat is first on the list. It is hardly sporting to bait his trap for him.

Birds need food, especially in winter. Chick scratch is popular. It is inexpensive and doesn't sprout all over the yard as do the more elegant seeds. Beef suet mixed with peanut butter and oatmeal, then formed into cakes, tempts many birds. Chunks of suet are good in cold weather. Most birds prefer an elevated garden tray or platform though there are some groundfeeders (doves). Some small birds (goldfinches, pine siskins) like to sway on tubular or globe feeders while they dine.

Water is another necessity, for both drinking and spashing; the closer to the ground, the better. Birds are afraid of water deeper than 1½ to 2 inches so you need to provide gravel underfoot or rocks for perching.

The final necessity is cover. Birds need shrubbery, trees, or vines for nesting, shelter, and food. Thorny plants offer protection from cats. *Pyracantha*, for example, both shelters and feeds. Small trees such as crabapple fit the tiniest spaces and still attract birds to food, safely. The gnarly old *H. canariensis* in my garden finds birds nesting in the spring and robins gorging on the dark berries in late winter.

You can create the ideal bird habitat with trees, shrubs, and lawn areas containing open spaces for scratching seeds and dense thickets for nesting and protection. Your rewards will be daily.

In the Ground

We have examined the outdoor room as a garden, for relaxing and playing. To many, however, an outdoor lifestyle is incomplete without water.

Swimming Pools

The swimming pool is the social center of the home and good landscaping adds to its appeal. A surprising number of pool owners seldom dip their toes in the water, using it only as a backdrop for parties. Another group, in this era of fitness and an aging population, uses the pool for exercise and therapy.

However you plan to use your pool, be aware that green plants around the water enhance the



ILLUSTRATION BY FRANCIA BARBIER

swimming environment, lend a feeling of peace to the poolside, and soothe the nerves (even those frazzled by the shrieks of splashing children). You may find containers effective around the pool. Raised planters serve as diving walls and outdoor seating. Poolside boulders lend a natural look. The insurance-wise fence is handsome draped in vines (many ivies do well on chain link fences).

There are some general principles to consider when planning your pool-scraping. Plants chosen must thrive in the poolside environment and not distract the viewer. Chlorine damage is a very real problem, appearing as wilted foliage or a bleached look. It can be absorbed by the roots as well as spashed on the leaves. The treatment is to prune the dead or damaged parts then encourage new growth by deep irrigation and light fertilizing.

Flowers are a decided asset but they attract bees, and there is a lot of exposed skin nearby. Fragrance around the pool is delicious; star jasmine, honeysuckle, passionflower, roses. Plants should be neither nuisance nor menace; no thorns, spines, or poisons. Litter from dropped leaves or fruits is an added chore. Stains from nuts detract from poolside beauty.

Pool landscaping is most attractive when coordinated with the architecture of house and garden.

Soft round plant forms complement the human body. Angular or twisted forms add drama. Ivies unite pool, shrubs, and lawn or patio. For a sense of intimacy, allow plants to abut the pool. For a feeling of distance and formality, place plants on perimeters of the patio or pool facing.

And always remember to emphasize safety, both in the water and in the plants adorning it.

Spas

A recent California craze, now filtering into national consciousness because of the sheer pleasure of it, is the spa or hot tub. This is an ancient treat, enjoyed by prehistoric man in the form of natural hot springs (such as Palm Springs and Yellowstone). Roman Emperor Diocletian, in 302 A.D., rejuvenated his exhausted armies in a spa large enough to cover 14 football fields.

Proponents of spas mention its healthful benefits: Increase in body temperature by the hot water, massage of aching body tissues by the hydrotherapy jets, relaxation of nerves and muscles, elimination of body impurities, increase in blood circulation. This is undoubtedly all true. Besides that, it feels so good!

Spas and hot tubs come in wood, fiberglass, tile, and concrete; above or below ground; on patios and, especially, decks or incorporated into swimming pools; and in all price ranges.

They have turned into social centers, with or without bathing suits, and the landscaping tips for pools apply also to spas. Ivies are the perfect plants to provide the privacy so desirable here. Safety needs to be emphasized; such things as water temperatures and soaking time (not too high, too long), no alcohol, no slippery surfaces, supervised children.

Water Gardens

Whether wine barrel with lotus or formal pool with koi, the water garden is always a focal point. If you feel you must have one, there are many books with directions for construction. In the planning stages you will want to consider three things. Location of the pond should include at least five hours of sun a day. It should be clear of trees, convenient to a garden hose, and near an electrical outlet if you plan to use lights, pump, heat, etc.

A simple shape is better, for both ease of construction and aesthetic appreciation. The pond needs to be at least 18-24 inches deep for plants and aquatic life and at least 40 square feet in size to avoid the excess heat which encourages algae.


Construction materials which blend with the site are best. Many choices are available, depending on desired appearance and skill level of the builder; concrete, preformed plastic, polyvinyl chloride (PVC) liners.

Different plants fit different needs. Containers filled with garden loam and aquatic plant fertilizer sink into the water and hold water lilies at exactly the proper depth. Oxygenating plants (water milfoil, waterweed, or cabomba nymphaeaceae) assist the fish and control algae. Others help keep the water clear and are lovely to contemplate; hardy water lilies, tropical water lilies, lotus. There are marginal aquatics for pool edges, arrowhead or marsh marigolds. Floating aquatics suppress algae and provide beauty; water chestnut, water hyacinth, water lettuce. And don't forget bog plants for the wet soil around the water garden; iris, may apples, cardinal flowers, and quite possibly ivies.

Ivy cascades in harmony beside a waterfall; long vining plants are 'Ingrid', 'Sagittaeifolia Variegata', 'Ingobert', 'Sylvanian', 'Tobler'.

In the Sky

Some plant lovers live on the 36th floor with no access to yard or garden. What then? They



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use what they have, be it window sill, balcony, or rooftop. Ivy fits these limited garden schemes very well, as you saw in the discussion about urban problems.

Balconies

Balconies are usually long, narrow, windy, and hard to handle. Container gardening is the obvious answer here. Bright flowers, grouped in several pots, make a definite statement. Ivies and other vines trail over balcony railings to soften angles and provide a backdrop for floral or vegetable displays.

There are some things to remember when planning your balcony garden. Building codes usually require balconies to support 60 pounds per square foot. That means lightweight soil mix and containers, because the addition of plants and water amounts to more weight than you would imagine. You need to provide for water runoff so your downstairs neighbor doesn't wake up in a shower. Your garden will probably be seen from inside as well as outside, so realize that careful planning is even more important in a small project than in a large; the mistakes are more glaring. The three-tier approach of good design is especially practical here. Use upright, tall plants such as small trees or vines on a trellis in the rear, shrubs or bushy plants for the bulk of the planting, and low floral edgings or ivies in the foreground.

Window boxes provide a large show in a small space, but have their dangers. It is wise to keep them inside the perimeter of the balcony rather than dangling in space on the outside. The boxes can be lined with galvanized sheet metal or an asphalt emulsion to protect wood from water.

Sheet metal flashing protects house siding, too. Ivies are ideal in windowboxes. Flowers in the center can be changed to match the season.

Rooftops

Some city dwellers garden in the sky, on the roof. They have stroll gardens, azaleas hiding the air conditioners, alyssum and strawberries edging bark paths, and an unsurpassed view of the skyline. Roof gardens go back in history as far as the ancient Greeks, people who knew how to enjoy living.

The rooftop gardener must consider all the things the balcony planter knows, and a few more. Often flooring is desired, which means careful weight calculations. Wind is a major problem, solved with various buffer and shelter. It is not a good idea to completely enclose sections of the roof garden, because the built-up heat destroys plants. Louvers allow circulation while controlling wind and sun. Direct sun for most of the day is another factor unique to this type of gardening. Arbors, trellises, small leafy trees are the solution. It is important to provide railings or barriers at roof edges so a stumble doesn't become a catastrophe. The roof must be watertight and drain moisture off the structure.

Most of the ideas in this article can be adapted for the roof garden, with the obvious emphasis on containers and the least weight possible.

Conclusion

Now that your interest has been stirred, I hope you will look at your particular outdoor setting with fresh eyes and discover ways you can put it to use for your continuing enjoyment. Outdoor living adds an extra dimension of space and pleasure for the family and can usually be had for a little imagination. Ivy's versatility makes it an ideal component in your garden plans, so sharpen your pencil and jot down your ideas. You will enjoy your new outdoor room.

Ivy mailorder sources:

Angelwood Nursery,
12839 McKee School Rd., Woodburn, OR 97071
Merry Gardens
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References

- Creating garden privacy with walls, trees, and shrubs. June, 1985. **Sunset**, p 242.
Gardener's Handbook. February, 1982. Better Homes and Gardens Creative Ideas. Meridith Corporation. Des Moines, IA.
Jones, Donna Hunter. 1984. *Garden Birds*. Sacramento Bee, Sacramento.
Kramer, Jack. **Your Garden in the City**. 1982. Crown. New York.
Prillwitz, Marsha. *Container Gardens*. 1985. Sacramento Bee, Cal Life. Sacramento.
Shedesky, Pat. *For gardens you remember*. February-March 1984.
Flower and Garden, p. 52.
Small-Space Gardens. 1978. Sunset Books, Lane Publishing. Menlo Park.
Sunset: Landscaping Illustrated. Lane Publishing, Menlo Park
Wellingham-Jones, Patricia. 1983. *Flowers Among the Ivies*. **Ivy Journal** 9(2):18-20.
_____. 1984. *Displaying the Ivy Collection*. **Ivy Journal** 10(3):21-25.
_____. 1986. *A Tisket, A Tasket, A Green & Yellow Basket*. **Flower and Garden** (30)4:42,44.
Williams, Wayne T. June, 1985. *Designs for Poolside Planting*. **Horticulture**, pp. 26-29.

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A Thorny Issue

*Your first gardening encounter with cacti
can be friendly.
We discover that San Diego is a real patch of
cactus culture*

By Gretchen M. Pelletier

There was this retired couple in the neighborhood whose entire front yard was a study in cacti — tall, squat, round, elongated. Some were smooth skinned, some appeared kind of furry, others looked downright mean. The neighbors all thought this couple was a little weird, what reason was there for growing these plants other than to save from having to mow a lawn?

Actually, that's a pretty good reason right there. A better one became apparent during the Great Drought in the '70s, when everyone else's yard up and died. All of a sudden this couple's garden looked exotic. People commented on the abstract form, the intricacies of each plant, and now noticed how green many were, and the burst of flowers that, sure enough, opened up in spite of the drought. They began to appreciate cactus.

This isn't another article about the dry garden, though the fact holds that cacti and other succulents are probably the most forgiving plants in terms of drought and neglect. (All members of the **Cactaceae** family are succulents themselves; the difference is that cacti, native to the Americas, all have small "cushions" called areoles from which grow spines or, in the case of **Opuntias**, glochids — miniscule barbed hairs. Many other succulents have spines, but unless they protrude from an areole, the plant isn't a cactus.)

Cacti are special in a number of ways; so special, in fact, that San Diego County has enough aficionados of the prickly things to support two good-sized clubs, the Palomar and the San Diego Cactus and Succulent Societies. Our county is an all but native growing ground for cacti: "We collect plants from all over the globe," says Dr. Leroy Phelps, president of the San Diego club. "San Diego is the best all-around climate in the world for growing most kinds of cacti."



It is a myth, however, that cacti can just be plunked into the ground and forgotten. "I've killed hundreds of them," Phelps laughs, "and I'm a specialist." He does add that that shouldn't discourage the beginner: "The best approach is to go to a nursery and find two or three that you like, ask about their care, then see if you can keep them alive."

Carl McLeod, "the cactus man" at Walter Andersen Nursery, suggests that you look at the price of the plant. "The higher the cost, the more rare the plant, and generally the more complicated to grow." Among the nearly foolproof cacti he showed us are those in the genus **Echinocereus** — they're hardy, have gorgeous flowers, and are easy to find; **E. engelmannii**, the hedgehog cactus, is a good bet. **Mammillarias**, up to 100 species of small, cylindrical or globe-shaped, single or clustered plants, flower delicately in a ring around the top. **Echinopsis** hybrids are "easy, easy," too. They resemble **Mammillarias** in shape and size, but produce much larger, showier flowers on tubes up to 8 inches long. **Lobivia** hybrids are, again, small and cylindrical or globular in shape. These cacti are for those who need real gratification: their flowers, in shades of red, yellow, pink, orange, purple, and lilac, are often nearly as big as the plant. All of the above, though usually grown in pots, can be planted in the ground where they'll tolerate either full sun or partial shade (which is preferable in hotter areas).

It's extremely important to remember that a cactus purchased from a nursery has been pampered to a certain extent — many are under some degree of cover. To acclimate a cactus that will receive full sun (and not all will, so be sure and ask), ease it out slowly. Try shading it with several layers of window screening, removing

a layer every several days. Cacti do sunburn, and radically altering exposure to light is a chief cause of failure.

Cactus mythology

Most cacti do equally well in containers as in the ground, if the soil is right: "It's a myth that cacti like pure sand," says Dorothy Dunn, a member of, and monthly speaker for, both clubs. "I prefer pumice mixed in with the soil. Perlite is another option, and it's much easier to get than pumice, but I find that it 'floats' to the surface. Good decomposed granite — not road mix — is also good but hard to come by." Phyllis Flechsig, another highly respected speaker/member (and owner of Phyllis Flechsig Cacti and Succulents in Encinitas) prefers a mixture using perlite, and for a good reason — it's light, so containers are easier to move. McLeod has his own soil recipe for the cacti sold at the nursery, but says that a 50/50 mixture of potting soil to pumice or perlite is a good rule. (There are commercial cactus potting mixes available on the market.) Excellent drainage is the goal, in containers and in the ground. If your yard is of heavy clay, try building up mounds of this mixture.

Myth: Cacti never need to be watered.

It's assumed that most cacti are desert natives, but many are from coastal and even jungle habitats. (The "jungle cacti" — *Epiphyllums*, *Rhipsalidopsis*, and *Schlumbergera* — are another article altogether, to be dealt with in another issue.) Sure, you can go away on a three-week vacation without worrying, but the experts we talked with agreed that summer watering is essential, especially if you hope to see your plants bloom. McLeod recommends watering cacti in the ground every one to three weeks during the growing season (spring, summer, and early fall), depending on drainage and the heat your yard gets, and not at all in winter. Container plants need watering more often — just before the soil completely dries out — during the growing season. Let them dry out more in winter. Give all plants a deep soaking.

Cacti appreciate a good meal with their summer drink, too, and a low-nitrogen fertilizer is the only kind you'll want to use. Nitrogen is the first number on the three-number equation you see on plant food packages; it should be a 10 or less (such as Liquinox Grow). Most of our experts shun the package directions and dilute their fertilizer way down so that they can use it with each watering (only during the growing season); 1 teaspoon per gallon of water is a suggestion. If feeding with every watering seems too much trouble, Osmocote, a timed-release food, was also mentioned, though we were told to try half the recommended strength.

Pesky critters

It is believed that cacti developed spines to stave off moisture-seeking animals (and a fence of thick *Opuntia littoralis*, or coast prickly pear, is probably more effective than barbed wire). Bugs, however,

blithely creep between the spines. Mealy bugs are a common threat, as is scale. Red spider mites particularly go for indoor plants. Root mealy bugs, which you discover when replanting (they appear as a whitish growth on the roots) can kill before you detect anything's amiss. Some growers recommend a twice-yearly application of a systemic pest control such as Cygon or Orthene. Systemics are extremely potent, so be sure to use a good mask and keep the stuff off your skin. Should infestation occur anyway, we suggest bringing a sample of the problem to your nurseryperson to avoid having to use chemicals which might not do the job.

Getting cacti under your skin

Each of the persons we spoke with about cacti were clearly fascinated by the plants, and very willing to share their enthusiasm. All offered the same advice to beginners: check out the local cactus and succulent societies' meetings and shows. Both clubs have extensive libraries available to their members, both offer in-depth looks at a different genus each month, and the meetings always end in an exchange and sale of plants you're not likely to find in a nursery. For information, call the clubs' presidents: San Diego Cactus and Succulent Society, Dr. Leroy Phelps, 280-9690; Palomar Cactus and Succulent Society, Frank Lapick, 753-2892.

The Del Mar Fair is where the Palomar Society pulls out all the stops, usually garnering a majority of blue ribbons. At the San Diego Wild Animal Park, an area highlighting the plants of Baja, including several cacti that you can no longer bring across the border, has been set aside. And both **Sunset** and **Ortho** produce inexpensive books, available in most nurseries, that can give you a solid start.

One last thing you might be interested in: Keith Brown, owner of Cactus King Nursery let us in on his secret for getting those tiny glochids out of your skin — rubber cement. Glop it on, let it dry, then whisk it off, prickle and all.

Editor's Note: The current President of San Diego Cactus and Succulent Society is Martin Mooney, (619) 427-6796.

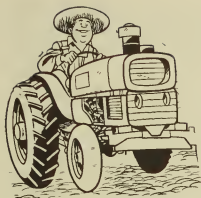


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What Is A Farmer?

By Albert L. (Gus) Schlapfer



While on a recent trip to San Francisco, I was leafing through the evening paper when I noticed a headline "WHO IS THAT EXECUTIVE IN OVERALLS"?

Having been raised on a farm in Nebraska, this statement immediately caught my attention. Upon reading further, I found the following article written by Mr. Bud Lee, a County Farm Advisor for the University of California. Here is his interpretation of "WHAT IS A FARMER"?:

Farmers are found in fields - plowing up, seeding down, rotating from, planting to, fertilizing with, spraying for, and harvesting if.

Wives help them, little boys follow them, city relatives visit them, salesmen detain them, meals wait for them, weather can delay them, but nothing can stop them.

A farmer is a paradox. He is an overalled executive with his office in his home. He is a scientist who used fertilizer attachments, a purchasing agent in an old straw hat, a personnel

director with grease under his fingernails, a dietician with passion for fresh fruits and vegetables, a productions expert faced with a surplus, and a manager battling a price-cost squeeze.

He manages more capital than most of the businessmen in town.

He likes sunshine, good food, county fairs, dinner at noon, auctions, his neighbors, his shirt collar unbuttoned, and above all, an above-average annual rainfall.

He is not much for droughts, ditches, free-ways, weeds, the eight-hour day, dusty roads, development, insects, diseases, freezing weather, or helping around the house.

Nobody else gets so much satisfaction out of modern plumbing, good weather, automatic furnaces, electric blankets, and homemade ice cream. Nobody else has in his pockets at one time a three-bladed knife, a checkbook, a billfold, a pair of pliers and a combination memo book and general farm guide.

A farmer is both faith and fatalist. He must have faith to meet the challenges of his capacities amid the ever-present possibility that an act of God (a late spring, an early frost, flood, drought) can bring his business to a sudden halt. You can reduce his acreage, but you can't diminish his optimism.

Might as well put up with him. He is your friend, your competitor, your source of food and fiber. He is your countryman - a denim-dressed business-wise statesman of stature. And when he comes in at noon, having spent the energy of his hopes and dreams, he can be recharged anew with the magic words - "The Market's Up!"

Gus Schlapfer is president of the Master Gardeners.

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California Cottage Gardening

Written and Illustrated By Karen Kees

Cottage gardens thrive, not only in England, but in Southern California.

For years, many thought English style cottage gardens wouldn't grow here. Cottage gardens are an English tradition and many English garden plants languish or die here — our climates and soils are very different.

However, the cottage garden is more than plants — it's a whole gardening concept. Originally cottage gardens were found only in the dooryards of country peasants. There you'd find a casual mix of flowers, herbs, and vegetables. The gardens of the wealthier classes were more formal.

In the late nineteenth century, the famous English garden designer Gertrude Jekyll became the champion of cottage gardening. Bored with the artifice of Victorian carpet bedding — the laying out of uniform designs with hot house annuals — she sought inspiration from countryside cottages. The same gardening philosophy works today in both England and California.

The idea is to let nature have its way in the garden; at least to let it look that way. A wide variety of flowers are combined for a profusion of color. They tumble among each other in a seemingly unplanned fashion. Vines and climbing roses scramble over bowers, walls and roofs. Creeping thyme and dainty bulbs pop up between the cracks of casually winding pathways. Herbs scent the air. Flowering trees and shrubs add more color and form.

There's little restraint in a cottage garden. You'll find almost no formality. Plants are allowed to express themselves and grow as nature intended. You won't see flowers of a single type and color forming a living carpet. The touch of the gardener is light in a cottage garden.

Don't be fooled by appearances. Because the feel is free and natural doesn't mean a gardener hasn't toiled. A beautiful cottage garden takes hours of loving care. The art is to make it look effortless. The cottage gardener is no less an artist than the painter or sculptor. In fact, many famous artists — Monet for instance — have been dedicated to, and inspired by, their gardens.

The English cottage garden can become the "California Cottage Garden" by substituting plants adapted to our climate.



Many brilliant flowers thrive here. Mix warm and cool colors. Some warm hued ones are: **nemesias**, orange **arctotis**, yellow basket-of-gold (*Aurinia saxatilis*), golden California poppies (*Eschscholtzia californica*), fiery **tritonias** and **sparaxis**. Cool colors can soften bold oranges and reds, or contrast with them. Try: blue spring star flower (*Ipheion uniflorum*) and **babiana**, white perennial candytuft (*Iberis sempervirens*) and **chrysanthemum paludosum**, and purple johnny-jump-up **violas**.

An artful jumble of flowers reflects the natural flow of a meadow. In a meadow you don't see just one kind or color of flower, but a mix — a flow of flowers.

Many Cottage Garden flowers come back year after year. Annual flowers are allowed to reseed and sprout again next year — volunteer. Some annuals that will volunteer are: baby-snap-dragon (*linaria*), larkspur (*Consolida ambigua*), California poppy (*Eschscholtzia californica*) annual phlox (*Phlox drummondii*), **Chrysanthemum paludosum**, statice species, cosmos, and **violas**.

Perennial flowers live for many years. Some cottage favorites are: pink groundcover phlox (*Phlox subulata*), basket-of-gold alyssum (*Aurinia saxatilis*), **coreopsis**, Achillea "Moonshine", Shasta daisies (*Chrysanthemum maximum*), bearded iris, dianthus, columbine (*Aquilegia*), and, of course, roses.

A garden bursting with joyous color begs to be shared. You're invited to visit my garden this spring.

Artist/Garden Designer Karen Kees' "California Cottage Garden", is BETTER HOMES AND GARDEN's Southwestern Test Garden. Visitors are welcome March through July, Tuesdays 1:00 to 3:00 P.M. Address: 12819 Selma Ct., Poway, CA 92064.

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Plant Tissue and Cell Culture

By Dr. Michael Marcotrigiano
Department of Plant and Soil Sciences
University of Massachusetts
Amherst, MA 01003

Herbs, spices, and medicinal plants are valued for their unusual chemical components, known as secondary metabolites, which give the plants their specific flavor, odor, and medicinal qualities. With the advent of cell culture, many individuals and companies have thought of producing these compounds by growing only plant cells or organs rather than whole plants. Toward this end, a major component of the recent 6th International Congress of Plant Tissue and Cell Culture meeting, attended by approximately 1500 people from over 50 nations, was dedicated to consideration of secondary metabolite production from cell, tissue, and organ cultures (1).

While much of the reported research dealt with characterization of compounds and the effects of media components on chemical production by plant material, several promising techniques were presented. One of the more novel approaches for enhancing metabolite production was the use of root cultures that had been genetically transformed with *Agrobacterium rhizogenes* to increase root growth and thus secondary metabolite production. Reports also indicated that immobilized cell suspensions entrapped in media like alginate produced higher levels of metabolites than free cells. Another promising area of study is the use of elicitors to trigger the production of metabolites by cells.

Reference

1. Somers, D.A., B.G. Gengenbach, D.D. Biesboer, W.P. Hackett, and C.E. Green. 1986. 6th International Congress of Plant Tissue and Cell Culture. Abstracts. Aug. 3-8, 1986. Univ. of Minnesota, Minneapolis, MN 55455.

Chicory-Radicchio

By Eleanore Macy

Chicory wears many hats. Originating in Mediterranean Europe, it is a wayside weed, a substitute for coffee, a vegetable for cooking, and it makes a superb salad. Dozens of cultivars are grown in Europe, particularly in Italy where all head-types, both red and green, are known as cicoria or radicchio. Here in the U.S., radicchio has come to refer only to the red forms. Relished in Italy, chicory (radicchio) is growing in popularity here. Mix these tangy flavored leaves with other salad greens to make a good-tasting, visually delightful salad.

CULTURE

Sow seed mid to late summer for a fall or winter crop, as flavor and red color develop during the cooler seasons. Plant seeds $\frac{1}{4}$ " deep, 3" apart in rows 2' apart. Seedlings should be thinned to 8-12" apart. Can also be grown between corn stalks.

HARVEST

Young, immature leaves may be cut off and used in salads. In the winter, trim leaves to an inch from the stem. Cover the remaining plant with a mulch of leaves or straw. Keep on the dry side and watch for snails and slugs. Harvest new growth in about a month.

Recommended for warm climates, Chioggia Radicchio (80 days) is suitable for California home gardeners as this variety forms a red and white variegated, crunch bittersweet head (tighter than most) without the need of a chilling period. For a one gram sampler, send \$1.90 (includes postage and handling) to CALIFORNIA GARDENERS SEED COMPANY, 904 Silver Spur Rd., #414, Rolling Hills Est., CA 90274.



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Gasterias

(Liliaceae)

By Dorothy Dunn

Gasterias, along with **Aloes**, **Haworthias**, **Bowieas** and **Bulbines**, belong to the **Liliaceae** family, which also includes such varied and non-succulent relatives as **Asparagus**, **Onions**, **Tulips**, and **Lilies**. They were initially classified as **Aloes** by **Linnaeus**. The genus currently contains about 100 described species, and stands today as a classic example of taxonomic chaos. **Edgar Lamb** said of them: "**Gasterias** have been in cultivation for a very long time and there are many unnamed hybrid plants in cultivation which defy identification." **Doreen Court**, in The Succulent Flora of Southern Africa, states that "It is very probable that at least three-quarters or more of these specific names will not survive the test of a full-scale field investigation of the group."

Gasterias are native entirely to South Africa, with the center of distribution being the eastern Cape Province. Some complexes occur in the southern Karroo District and northwards to Namaqualand and Namibia, while others range over into Natal and the southeastern Transvaal. In habitat they grow in the shade of other bushes, from sea level up to the cooler mountain slopes.

The generic name **Gasteria** is derived from the Greek and means "stomach" or "belly". This refers to the swollen, belly-like species. All species have distichous (two-ranked) leaves when young, and some retain this habit throughout life, as in the **G. pillansii** complex. For example, in **G. armstrongii** (thought by some to be a hybrid) this juvenile, or distichous form remains constant, and mature plants of this species are very striking. Botanists call this type of "arrested juvenility" **neoteny**, a term borrowed from zoology. However, most species spiral with age, and juvenile and mature forms of the same plants can look so different that in many cases different names have been given to the same species — hence the taxonomic confusion.

Adding to this confusion, **Gasterias** hybridize very readily, not only among themselves but with other members of the **Liliaceae**, particularly **Aloes** (x **Gastrolea**) and **Haworthias** (x **Gasterhaworthia**). The usual **Aloe** parent seems to be either **A. aristata** or **A. variegata**, and in some hybrids this is quite obvious.

Gasterias are remarkably tough and drought-resistant. In cultivation they can be grown much like **Haworthias**, in that they need good drainage and a fair amount of shade. However, they are not as touchy, as **Haworthias** in many respects, and do not seem to experience the periodic loss



Photo by Wilbur H. Glover

of roots which tends to be an inevitable part of the annual cycle of some **Haworthia** species. Like **Haworthias**, they are mainly winter growers. Although quite slow-growing, most species are ridiculously easy to propagate. Since most of them cluster prolifically, it is a simple matter to remove and root the small offsets, most of which detach from the parent plant complete with roots. Also, all species can be grown from leaf-cuttings, and you do not even need an entire leaf to accomplish this (however, you do need patience — they are slow). Larger leaves can be cut in half, and each section will root and produce several plants. They can, of course, also be grown from seed, but this is not usually recommended because of the previously-mentioned tendency to hybridize. Hummingbirds love **Gasteria**, **Haworthia**, and **Aloe** flowers alike, and visit all three indiscriminately.

Gasterias seem to be relatively pest-free. The most serious affliction is probably the black spots which appear on the leaves of some species — cause unknown. In size they range from the diminutive and charming **G. liliputana** through the dark, reptilian beauty of **G. batesiana** to the very large and imposing **G. acinacifolia**, whose leaves have been known to reach a length of one meter. Although **Gasterias** are often overlooked by collectors, being somewhat overshadowed by their relatives the showier **Aloes** and the more elegant **Haworthias**, they are nonetheless a worthwhile group to cultivate, and all species are useful either as pot plants or as striking landscape subjects for shaded areas.

References:

- Barkhuizen, B.P. Succulents of Southern Africa
Chidamian, Claude The Book of Cacti and Other Succulents
Court, Doreen Succulent Flora of Southern Africa
Haselton, Scott Succulents for the Amateur
Lamb, Edgar and
Brian Popular Exotic Cacti in Color



Book Reviews

By Mary Lou Orphey

A PROSPECT OF FLOWERS, a Book About Wild Flowers by Andrew Young. 1986 Viking Penguin Inc., 40 West 23rd St., New York, N.Y. 10010. 5 1/8 x 7 3/4 in. Paperback \$5.95 216 pages.

This delightful book is a perfect companion for an evening of solitude by the fireside, for surely one's companion will be the gentle spirit of Andrew Young.

The book is a test for intellectual gardeners as it is peppered throughout with reference and quotations from classical literature. It is fascinating for those who enjoy the study of human nature as we see the author's good-natured perception of himself and others. Most of all, the author's astute observation of plant characteristics and habits as he travels throughout Britain in his pursuit of rare wildflowers will enthrall plant lovers.

"...A restless spirit may account for my running after rare flowers, but it must be admitted that seldom have I attempted to discover them myself. So I have had the more leisure to sit on a boulder or a fallen tree-trunk and think of other things. The simple Nature-lover should believe Wordsworth, when he says:

His simple truth did Andrew glean
Beside the babbling rills;
A careful student he had been
Among the woods and hills."

PLANTS OF THE BIBLE, by Harold & Alma Moldenke, 1986 Dover Publications, Inc., 31 East 2nd Street, Mineola, N.Y. 11501. 6 1/8 x 9 1/8 in. Paperback \$8.95 362 pages.

Biblical scholars will find this book invaluable in confirming the varieties of plants described in The Bible. "The Bible" refers not only to the authorized King James (Protestant) Version, but to the Douay (Catholic) Version, and the Jastrow (Jewish) Version. Other versions are also discussed.

More than two hundred plants are described in this reference book about current Biblical botany. We find out that the burning bush may have been a crimson-flowered mistletoe known as acacia strap-flower. The apple referred to in Genesis 2:9&17 may have been an apricot.

In Biblical days, a garden did not mean a flower or vegetable garden. It was an orchard enclosed by a hedge of thorns or a stone wall. The trees were usually olive trees with fig trees at each corner. Kings and other important people had almond, walnut, or pistachio trees growing in their gardens.

These are just a few fascinating facts included in **PLANTS OF THE BIBLE**.

GROWING AND USING HERBS AND SPICES by Milo Miloradovich, 1986 Dover Publications, Inc., 31 East 2nd St. Mineola, N.Y. 11501. 5 3/8 x 8 3/8 Paperback \$4.95 231 pages.

Have you ever searched for a good old book only to discover it is out of print? This slightly abridged reprint of **THE HOME GARDEN BOOK OF HERBS AND SPICES** (published in 1952) is available for a new generation of herb gardeners.

The author discusses the history, characteristics, uses, cultivation and harvest of several hundred culinary herbs and spices.

There are many lists: lists of herbs to grow in various geographical localities — different parts of the United States and Canada, England, the continent, and Mexico. There are other lists of herbs easy to grow in small gardens, selecting culinary herbs for individual gardens such as planting in shady places, blossom colors for grouping, for hedges and back borders, as ground carpets, for edges and borders, and in rock gardens.

There are two variations of traditional plans for herb gardens and a plan of the author's herb garden.

One can learn how to grow herbs indoors, how to develop seedlings for early transplanting, how to dry herbs, quick freeze and preserve them, and household uses of herbs and spices.

ART FORMS IN THE PLANT WORLD by Karl Blossfeldt. 1985 Dover Publications, Inc., 31 East 2nd Street, Mineola, N.Y. 11501. 8 1/2 x 11 in. Paperback \$8.95 120 pages.

Man looks to nature for discovering beauty mirroring its forms in architecture and art. That is why these 120 plates of art forms in the plant world are exciting. One can enjoy their obvious beauty. But, if one uses their imagination, one can see how man has copied these forms in creating the artificial world around us.

The subject matter is the leaves, buds, twigs, stems, and flowers of plants. Example of plants included are *Silphium Laciniatum*, *Cucurbita*, *Salvia Argentea*, *Symphytum Officinale*, *Forsythia suspensa*, and *Adiantum Pedatum*.

FOR YOUR INFORMATION. Dover Publications has the Complete Dover Nature Catalog which lists over two hundred quality books on nature studies. It is available on request.

PRINCELY GARDENS, The Origins and Development of the French Formal Style by Kenneth Woodbridge with 315 illustrations, 1986 Rizzoli International Publications, Inc., 597 Fifth Avenue, New York, NY 10017. 9 x 11 in. Hardback \$45.00 320 pages.

The subject of the textbook is the influence of French history on the development of the formal gardens of France, correlation between French and Italian design, and a study of various royal gardens through use of photographs, illustrations and extensive research.

The book is divided into four parts: Origins

(the Medieval Legacy and Early Renaissance), The French Renaissance Garden (includes Italian Influence, Italian Theory and French Practice, and French Gardening in the Sixteenth and Seventeenth Centuries), The Classical Tradition (including but not limited to Richelieu's Gardens, Vaux-le-Vicomte, Versailles, The Royal Gardens under Louis XIV), and The Legacy of the Le Notre.

There are many aspects of this book of interest to gardeners. The list of flowers (French and English names) used in the sixteenth and seventeenth century includes many planted today. The principles of garden design used so many years ago are still relevant today on a smaller scale. Illustrations show the planning and effort necessary to create such intricate designs such as the parterres at Trianon. Imagine planting 40,500 tulips, 27,000 narcissus, 13,500 hyacinths and thousands of perennial flowers inside a box hedge. There are two illustrations of Le Raincy — one as it was designed by the Le Notre, and later as it was in the English style of the nineteenth century. Today it no longer exists.

Step back into history and learn about the origins and development of the French formal style.

Ornamental Plants for Sub-Tropical Regions by Roland Hoyt available for purchase at the San Diego Floral Office, Rm. 105, Casa del Prado, Balboa Park.

Season to Plant



By Shonin Yamashita

The season to plant and the season to appreciate are different for bedding flowers.

In the Southern California area, you may plant stocks in summer in sunny locations for winter blooms. You may plant stocks from September up to the end of December. Stocks are exceptionally long seasoned flowers, but after February you can't expect the best results.

You can obtain stocks at any nursery in Southern California area in May, June, or July even, but you are wasting money.

Chrysanthemum must be divided and re-set in May and June in the San Diego area. Chrysanthemum stems can be stuck in the ground any time of the year, but I don't recommend it.

Most bulbs are extra sensitive. Plant them early in the season, before the end of January.

Many gardeners think the petunias as being spring flowers, but plant petunias in January or February. You will see a big difference in their performance, different from those planted in March.

Shasta daisies divided in early July often bloom at Christmas time in Southern California. Among flowers to be appreciated in the winter season in the Southern California area are pansies, Johnny-Jump-Ups, African daisy, Virginian stock, stock, sweetpea, Iceland poppy, and calendula.

I never plant pansies before Halloween is over, because of the Santa Ana danger. Pansies can't take that direct hot sun and dry wind.

Winter flowers planted in summer require watering at least five times a week. After the weather gets cooler, you will have to water pansies three times a week, but for stocks, after well established, half or one-third of that is enough.

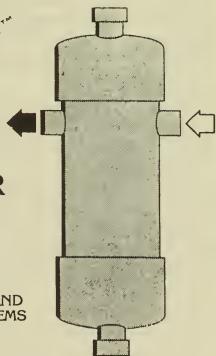
Each kind has its own thirst habit. Good sandy loam with manure, leaf mold, peat moss, etc., is ideal because in good prepared ground, excess water will be quickly drained out.

Yet, watering the garden with the hose or sprinkler system uniformly is dangerous. When stocks get the same amount of water as pansies every time, it's ruinous. When it rains continuously for a week or ten days in winter, many stocks may get yellow and die.

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"DEALER INQUIRIES INVITED"



BEGONIAS Margaret Lee

- do** a complete cleanup - clear out all dead leaves, spent blooms, and dead woods.
- trim back** stragglers and restake where needed.
- prune** for shape, and to encourage more side-growth. It is advisable to prune gradually — not more than 1/3 of the plant at a time to avoid too great a shock.
- apply** a top dressing to make sure roots are covered if the soil is still light and porous.
- repot** if soil is heavy and packed.
- keep** a watering program if not enough rain. Plants should be moist but not wet.
- start feeding** if not on a yearly program; give ¼ strength if feeding once a week; ½ strength if twice a month; full strength if once a month.
- spray** for insects and disease control.
- start** tuberous begonias in March in a sprouting medium — moistened leaf mold and sand; keep moist and in a warm place.

BONSAI Dr. Herbert Markowitz

- protect** from extreme cold - place in garage or under cover.
- see** that each tree has sufficient moisture for its seeds.
- move** the trees gradually into more sunlight to encourage healthy growth; take particular care of deciduous trees to avoid scorching of new leaves.
- watch** for aphids and other pests.
- repot** plants; shape, to conform to containers or design.
- wait** until April to fertilize; can use high nitrogen for foliage growth; use high phosphorous fertilizers to set flowers and fruit.
- use** ½ strength fertilizer spaced several weeks apart rather than use full strength only one time. Measure accurately; too much fertilizer can burn roots and cause leaf damage.

BROMELIADS Mary Siemers

- keep** plants clean. Remove all dead leaves - do not force off, it will leave a wound for possible infection; cut off with scissors close to the base.
- treat** plants that have scale by dipping in a

Cygon 2E, solution 1 tablespoon cygon to 1 gallon water plus 1 teaspoon of Ivory (dishwashing) detergent. Drain upside down separately. If necessary, repeat in two weeks and return to their place.

start fertilizing when weather begins to warmup.

Spray entire plant filling the center cup and media. Use a water soluble fertilizer once a month at ½ recommended amount on label. In addition, you may use a time-release fertilizer on the media only.

keep snails and slugs away by spreading pellets around base of pots. Protect young seedlings especially.

prepare ahead for summer by providing the proper shade cloth for your area or lath, as most bromeliads cannot take direct sun.

CACTUS & SUCCULENTS Joey Betzler

repot plants that are overgrown or need new soil.

groom those favorite plants.

propagate new plants via cuttings, divisions, leaves, or seeds.

watch for insects and fungi pests; treat with alcohol and water mixture, insecticidal soap, malathion, or fungicide.

protect plants from adverse weather conditions such as hail or windstorms, and watch for signs of sunburn.

water and fertilize plants that show signs of growth; use a low nitrogen fertilizer to promote flowering or a 10-10-10 for overall growth.

CAMELLIAS Les Baskerville

plant new bushes while still in bloom.

transplant your bushes not done last month.

maintain a regular watering program if no rains.

feed plants with fish or acid fertilizer.

remember not to fertilize a newly transplanted bush, but water well and use a Vitamin B1 solution.

feed iron to promote healthy green growth.

prune plants as they finish blooming to open up plants to air.

keep blooms picked up to prevent petal blight.

watch for loopers and spray with malathion.

DAHLIAS Abe Janzen

place tubers in starting medium such as vermiculite or sand. Keep in a warm place to sprout; beware of too much moisture.

check tubers for crown rot or soft spots caused by moisture.

prepare planting areas by adding humus and fertilizers; use 2 ½ lbs. each of superphosphate and sulfate of potash per 100 feet.

plant sprouted tubers, sprout-side up, 6 inches below ground surface, 2 inches from stake and cover with 2 inches of soil.

be sure to drive stake into ground before planting tubers.

keep moistened, but do not keep wet.
protect new growth from snails.

EPIPHYLLUMS (Orchid Cactus) Frank Granatowski

maintain good grooming by removing dead, spindly, and unsightly branches. Remove dead leaves and debris from containers, eliminating a haven for harmful pests and allowing a free flow of oxygen to soil and root systems.
give mature plants a final feeding of nitrogen-free fertilizer, such as Bloom-Builder or Hi-Bloom, to promote healthy buds and blooms.
watch new buds and blooms for aphids and ants attracted by the nectar; if necessary, insecticides such as Orthene and malathion may be used. Carefully read and follow directions on label.
refrain from relocating plants once buds have begun to form.
bait for snails; a few granules of sluggetta have proved effective when placed at base of plants leaving little or no residue.

FERNS Ray Sodomka

remove entire dead fronds including part frost-bitten.
divide, repot, or add leaf mold to those plants needing it.
use Vitamin B1 after dividing; use per instructions on label.
fertilize established plants with high nitrogen liquid or pellets.
plant spores.
spray for aphids and scale.
maintain humidity by keeping surrounding area damp.
catch rain water to use on plants in covered areas.

FUCHSIAS William Selby

be sure to take cuttings by pruning back and shaping plants, if not done before.
drench cuttings with Benomyl or Captan to reduce root rot and fungus.
check those cuttings planted earlier for root formation by pulling lightly on stem; if a slight resistance, roots have formed.
watch frostbitten plants – they may recover. Do not prune until new growth appears, then prune to new growth.
pinch earlier planted cuttings.
fertilize growing plants with a balanced fertilizer; do not feed newly repotted cuttings for at least two weeks.
check plant ties, stakes, and retie as required.
maintain a good watering schedule – remember plants like to be moist but not wet.

GERANIUMS Carol Roller

water thoroughly when plants become fairly dry. Each watering should moisten the entire soil ball. Excess water should drain

away. Keep foliage as dry as possible.

continue feeding a balanced fertilizer dissolved in water, using at less than the recommended strength, often enough to keep plants from developing nutritional deficiencies.
continue pest and disease control using products according to the manufacturer's directions.
selectively prune zonals and ivies for future bloom. Avoid cutting regals and scented because flowers will be lost by pruning at this time.
make cuttings from the ivies and zonal prunings.
remove faded flowers and old, discolored leaves.
rotate plants on a regular basis in order to produce well-shaped plants.

GESNERIADS (African violets belong to family)

Michael Ludwig
clean up debris from around plants; discard old leaves and flowers.
trim and repot plants. If root-bound, cut off all dead roots that look brown and soft.
start feeding when new growth appears.
clean up growing area and spray for mildew and mold.
spray for aphids before new growth is out; bait for snails and slugs.
water and fertilize more frequently as active growth appears.
fertilize with trace elements in April those plants that were not replanted. This replaces elements used by plant and lost in watering.
transplant seedlings in fresh soil and planting mix.
pot African Violets in container 1/3 size of plant. (A 12-inch plant should be in a 4-inch pot). Place on a regular feeding schedule, feed $\frac{1}{4}$ strength every time you water.

HEMEROCALLIS (daylilies)

Southwest Hemerocallis Society
divide over-grown plants before hot weather.
replant in well-prepared soil with plenty of humus.
fertilize established plants with a fertilizer of 1-1-1 ratio (as a 6-6-6) or a 1-2-1 ratio (as 5-10-5). Do not feed new plantings until well-established.
control aphids if necessary.

IRIS San Diego-Imperial Counties Iris Society

clean beds and keep weeds under control.
water regularly if no rain.
start feeding with a low-nitrogen, all purpose, or liquid fish fertilizer.
watch for pests – systemic sprays applied as a drench will usually free iris of aphids and thrips.
give Japanese and Louisiana acid food; camellia type fertilizer may be used.

ORCHIDS Charlie Fouquette

For Cattleyas:

repot any cattleyas that are showing new "eyes" (can place divisions in plastic bags so they

will initiate roots). Blow up bags with your breath - carbon dioxide, and seal plant when roots are 2-inches or more long.

do **not** change position of plant in relationship to sun.

For Cymbidiums:

move to shade as weather clears, especially yellows and greens, to keep from fading.

protect from showers or hail so no harm to buds and flowers.

clean debris from and around plants and under benches.

continue with low nitrogen fertilizer.

check for pests — slugs, snails, etc.

For Paphiopedilum (cypripedium)

repot after blooming.

watch sun through glass, watch light requirements.

For Phalaenopsis:

protect plants that are in spike from drafts and temperature changes.

keep bud-blast at minimum.

do not rotate plants if you must move them to keep spike in nice orchid display (not twisted).

shade areas that are becoming too warm — inside and outside hot house.

General Information:

check aircooler, get new pads, oil motors, clean out salt build-up in base reservoir, check pump and float, patch holes in leaks with roof tar (cold).

reverse Osmosis Units, open valves and flush until water is clear, then reset to proper percentage recover.

save old bark and potting mixes to aid in planting trees or shrubs. Mix with natural soil or potting mix half and half.

ROSES San Diego Rose Society

supply plenty of water to growing plants if rainfall is light — at least about 2-inches per week.

feed established plants with a well-balanced rose food every 3 to 4 weeks except when in full bloom.

give newly planted bushes an application of a root-stimulant such as Hormex or Super Thrive.

keep foliage beautiful and disease and pest-free; use Orthene and Funginex which can be mixed and applied in one application — about every ten days. Use also for elimination of thrips which cause brown "freckles" and streaks on petals. Can stop using Funginex in April.

remove side buds to produce large, long stemmed blooms.

VEGETABLES

start seeds of beans, corn, cucumber, eggplants, pepper, summer squash, and tomatoes in pots to protect growth — transplant to garden in April and May.

set plants of broccoli, cauliflower, celery, chard, kale, lettuce, onions, and collards which are available at the nurseries.

protect from frost and rains with a translucent cover.

set plants previously started or obtained from nurseries — cucumber, eggplant, pepper, tomato, and summer squash.

set out bulbs of onions and garlic cloves.

GREEN THUMB ITEMS

cut back poinsettia around St. Patrick's day, removing last year's growth to within two joints of the old wood.

divide chrysanthemums — take cuttings from old plants and make divisions.

finish planting bare-root trees and shrubs in March.

prune spring flowering shrubs and trees using the sprigs for arrangements to enjoy in the home. After blooming is finished, mulch with leaf mold and manure — water well.

set out annuals such as zinnias, pansies, marigolds, and petunias for fast growth and spring color.

plant perennials — carnations, gerberas, marigolds, Shasta daisies.

tie up foliage of daffodils and narcissus to be neat — do not cut off until naturally withered and dried; leaves feed bulbs for next season's flowers.

mulch and **reseed** lawns in April where necessary. **give** a top dressing of fresh rich soil and humus to clivias, agapanthus and amaryllis.

feed azaleas and camellias as soon as they are through blooming with an acid-type special compound for these shrubs.

plant calla lilies, cannas, gladiolus, and tuberous begonias.

feed nearly everything that was not fed in March.

water bedding plants, small trees, and shrubs if rains have stopped.



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352 Leeward Court
Oceanside, CA 92054
222 Jefferson St., Vista, CA Fri. 7:00 p.m.

NORTH COUNTY SHADE PLANT CLUB
Pres: Mrs. Driscoll C. Luers 439-3677
1635 Mt. View Avenue
Oceanside, CA 92054
3rd Sat. Eckle Bldg., Quail Gardens
Encinitas, CA 1:00 p.m.

OHARA SCHOOL OF IKEBANA LA JOLLA
Pres: Mrs. Donald Davis 672-0128
11211 Del Diablo Street
San Diego, CA 92129

OHARA SCHOOL OF IKEBANA SAN DIEGO
Pres: Mrs. Walter Bourland 276-4667
2938 Havasupai
San Diego, CA 92117

ORGANIC GARDEN CLUB, SAN DIEGO
Pres: Mr. John E. Miller 460-8756
1302 Helix Street, No. 52
Spring Valley, CA 92077
3rd Fri., Rm. 104, Casa del Prado 7:30 p.m.

Every 2 months starting Jan.
PACIFIC BEACH GARDEN CLUB
Pres: Mrs. Rachael E. Smith 488-0830
4995 Fanelul Street
San Diego, CA 92109

2nd Mon., Sep. thru Jun., 1:00 p.m.
Pacific Beach Community Center
PALOMAR CACTUS AND SUCULENT SOCIETY

Pres: Mr. Gene Eisenberg (619) 487-1051
17592 Corbel Court
San Diego, CA 92128

PALOMAR DISTRICT CALIFORNIA GARDEN CLUBS, INC.
Dir: Mrs. Alvin F. Putman 949-9587
15665 Friutale Road
Valley Center, CA 92082

PALOMAR ORCHID SOCIETY
Pres: Ted Pinger 436-2326
457 E. Glauca
Leucadia, CA 92024
2nd Fri., Vista Senior Citizen Center
7:30 p.m.

POINT LOMA GARDEN CLUB
Pres: Kimberly Snedden
223-3806
4423 Alhambra Street
San Diego, CA 92107

2nd Wed., Westminster Presby. Church
Tallbot & Canon, 10:00 a.m.
POWAY VALLEY GARDEN CLUB
Pres: Mrs. John Stockley 484-7436
13747 Freeport Road
San Diego, CA 92129

2nd Wed., Hally's Garden Room
13519 Poway Rd., Poway 9:00 a.m.
PROFESSIONAL WOMEN'S HORTICULTURE AND LANDSCAPE ASSOCIATION (PWWLA)
Pres: Karen Kees 566-3851
P.O. Box 3424

San Diego, CA 92103
4th Wed., Jan., Mar., May, Sep; 1st Wed Nov.
RANCHO SANTA FE GARDEN CLUB
Pres: Mr. John Rainsford
Hort. Ch: Corrine Gruenwald
P.O. Box 1696

Rancho Santa Fe, CA 92067
2nd Tues., Rancho Santa Fe Garden Club
Avenida de Acadias, Rancho Santa Fe
7:30 p.m.

SAN CARLOS GARDEN CLUB
Pres: Mrs. Wendell W. Bemis 465-6834
7808 Lake Adlon Drive
San Diego, CA 92119

4th Tues., Home of Members, 9:30 a.m.
SAN DIEGO ASSOCIATION OF PROFESSIONAL HORTICULTURISTS
Pres: Miss Cynthia Drake 271-8933
11121 Saunders Court
San Diego, CA 92131

4th Mon., Casa del Prado Rm. 104, 7:30 p.m.
SAN DIEGO BONSAI CLUB, INC.
Pres: Mr. Stan Childs 583-0562
5460 Baja Drive
San Diego, CA 92115

2nd Sun., Casa del Prado, 1:00 p.m.

SAN DIEGO BOTANICAL GARDEN FOUNDATION, INC.
Dr. Herbert A. Markowitz
224-8552
876 Armada Terrace
San Diego, CA 92108

SAN DIEGO BROMELIAD SOCIETY
Pres: Mr. Mitchell Cies 422-8557
639 First Ave., Chula Vista, CA 92010
1st Thurs., Byzantine Catholic Church
2235 Galahad Rd., Serra Mesa, 7:45 p.m.

SAN DIEGO CACTUS & SUCULENT SOCIETY
Pres: Mr. Martin Mooney 427-6796
97 K Street, Chula Vista, CA 92011
2nd Sat., Casa del Prado, 1:30 p.m.

SAN DIEGO CAMELLIA SOCIETY
Pres: Cynthia Drake 271-8933
11121 Saunders Court
San Diego, CA 92131

3rd Wed., Casa del Prado, 7:30 p.m.
SAN DIEGO COUNTY BRANCH NATIONAL FUCHSIA SOCIETY
Pres: Mike Angelo (619) 729-3766
4910 Neblina Drive
Carlsbad, CA 92008

2nd Thurs., Palmsquist School
1995 California St., Oceanside 7:00 p.m.
SAN DIEGO COUNTY DANIEL SOCIETY
Pres: Leslie Pickford 728-1083
5350 Via Bello
San Diego, CA 92111

4th Tues., Casa del Prado, 7:30 p.m.
SAN DIEGO COUNTY ORCHID SOCIETY
Pres: Mr. David Reid 723-7996
31970 Rockinghorse Road
Escondido, CA 92026

1st Tues., Casa del Prado, 7:30 p.m.
SAN DIEGO DAYTIME AFRICAN VIOLET SOCIETY
Pres: Beverly Decker 469-9975
7430 Stanford Ave., La Mesa, CA 92041

2nd Mon., Fellowship Hall, Christ United
Methodist Church, 3295 Meade, 12 noon
SAN DIEGO EPIPHYLLUM SOCIETY
Pres: Mr. Milton D. Turner 224-0955
2674 Willow Street
San Diego, CA 92106

2nd Wed., Casa del Prado, 7:30 p.m.
SAN DIEGO FERN SOCIETY
Pres: Mr. Donald Cahill 438-9409
7145 Argonauta Way
Carlsbad, CA 92008

3rd Thurs., Casa del Prado, 7:30 p.m.
SAN DIEGO FUCHSIA & SHADE PLANT SOCIETY
Pres: Mr. Bob Matlock 423-0213
1333 New Chateau Drive
San Diego, CA 92154

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SAN DIEGO GERANIUM SOCIETY
Pres: Mr. Jim Zemick (714) 551-3264
15442 Orleans Circle
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2nd Tues., Casa del Prado, 7:30 p.m.
SAN DIEGO GESNERIAD SOCIETY
Pres: Jim Moran
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San Diego, CA 92107

1st Thurs., Casa del Prado, 7:30 p.m.

SAN DIEGO/IMPERIAL COUNTIES IRIS SOCIETY
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San Diego, CA 92119

SAN DIEGO ROSE SOCIETY
Pres: Mr. Cor Applgate 463-3555
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La Mesa, CA 92041

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753-1044
912 Emma Drive
Cardiff, CA 92007

4th Wed., Eckle Family Bldg.
Quail Gardens, Encinitas, 10 a.m.
SAN MIGUEL BRANCH AMERICAN BEGONIA SOCIETY
Pres: Mr. Michael Ludwig 461-6906
7007 Mt. Vernon Avenue
Lemon Grove, CA 92045

1st Wed., Casa del Prado, Rm. 104,
7:30 p.m.
SOGETSU SCHOOL OF IKEBANA
Pres: Mrs. Leroy Layhe 429-6198
2829 Flax Drive
San Diego, CA 92154

SOUTHWEST GROUND JUDGES COUNCIL
Chr. Mrs. Edwin R. Gould 475-8996
2111 Rachael Avenue
San Diego, CA 92139

1st Wed., Casa del Prado, 10:00 a.m.
SOUTHWEST HEMEROCALLIS SOCIETY
Pres: Mr. C.R. Bowman 273-7937
3927 Sequoia Street
San Diego, CA 92109

1st Sat., Feb., Apr., Jun., Sep., Nov.
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Meeting 19-23, Aug. 1987, Denver Co.
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8304 Hydra Lane
San Diego, CA 92126

4th Thurs., La Jolla United Methodist
6063 La Jolla Blvd., La Jolla 1:00 p.m.
VISTA GARDEN CLUB
Pres: Mrs. Edward Kelly 726-7789
30032 Disney Lane, Vista, CA 92084

1st Fri., at 222 Jefferson St., Vista
Senior Service Center, 12 noon

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Mar. 28, 29

Balboa Park African Violet Club's 12th Show, Casa del Prado, Room 101, Balboa Park. Sat: noon-5 p.m., Sun: 10-4 p.m. Free.

Mar. 28 & 29

Pasadena Garden Club's Mini Show "Gifts from the California Garden". Plants for sale on Sunday, Apr. 5, 9-4:30 p.m. Rooted geranium cuttings free both days. Apr. 5, 9-4:30 p.m.

Mar. 28 through April 5

Spring Flower Show in Van De Kamp Hall, Descanso Gardens, La Canada Flintridge.

Mar. 29

OFFSHOOTOURS sponsors a Free two-hour botanical tour of the San Diego Zoo which boasts over 6,000 species. Reservations required. Call (619) 297-0289.

Mar. 29

Geranium Demonstration by Susan Tufenkian. Also plant sale at South Coast Botanic Garden, Palos Verdes Peninsula. 2 p.m.

Mar. 30, 31

"Silver Memories" Flower Show sponsored by Point Loma Garden Club celebrating 25 years the club has been organized. St. Peter's By the Sea Lutheran Church Hall, 1371 Sunset Cliffs Blvd., San Diego. Mon: 1-5 p.m., Tues: 10-4 p.m. Free. Information: Contact Mrs. Donald Innis, 3211 Trumbull, San Diego, CA 92106.

April 1

Study Botanical Illustration. A new course in Botanical Illustration will be offered by UCSD Extension spring quarter. It will be taught by Irina Gronborg and is open to anyone who wishes to develop skills in drawing plants. The course begins April 1 and meets Wednesday evenings 7-10 p.m. For further information please call UCSD Extension 534-5422, or Irina Gronborg 481-9105.

April 1-30

"Garden Project — an Environmentalist's Garden"

A solo exhibit of full-color botanical drawings by Irina Gronborg will be on display in the Sierra Club Gallery April 1-30. The Gallery is located in the Sierra Club Offices, #9 House of Hospitality, Balboa Park, upstairs from Cafe del Rey Moro; it is open Monday through Friday 10-4. For information call 233-7143. The series depicts some favorite plants from the garden of the artist, a long-time member of the Sierra Club.

Apr. 3, 4

Hydroponic Society of America's (HSA) Eighth Annual Conference and Trade Show at the new San Francisco Airport Marriott Hotel. Theme is "Hydroponics: Effective Growing Techniques". Attendance is open to the public. Info: (415) 682-4193 or write Gene Brisbon, P.O. Box 6067, Concord, CA 94524.

Apr. 3 through Apr. 30

Oil Paintings of Landscapes by Dory Grade will be on display at the Hospitality House in Descanso Gardens. 9-3:30 p.m.

Apr. 4, 11

The Garden Club of Charleston, South Carolina's 52nd Annual Spring House and Garden Tours. Includes many private historic homes and gardens. 2-5 p.m. Admission charge. Information: Mrs. A. Jerome Blalock, 137 Broad Street, Charleston, S.C. 29401.

Apr. 4, 5

"An Early Spring Iris Show" hosted by the Southern California Iris Society. A limited number of plants will be for sale. Los Angeles State and County Arboretum, Arcadia. Sat. 1-4:30 p.m. Sun: 9-4:30 p.m.

Apr. 4, 5

Symphony of Flowers Flower Show and Plant Sale by the San Dieguito Garden Club at Ecke Building, Quail Gardens, 230 Quail Garden Drive, Encinitas, CA. Sat: 1-5 p.m., Sun: 10-4 p.m. Free. Open to the Public. Info: Mrs. Laura Hoke, (619) 436-9462.

Apr. 4, 5

South Bay Orchid Society's Orchid Show and Plant Sale at Torrance Recreation Center, 3341 Torrance Blvd., Torrance, CA. Selling hours: Sat: noon-6 p.m., Sun: 11-5 p.m.; Show hours: Sat: 1-8 p.m., Sun: 11-6 p.m. Handicapped and Photographers: Sun: 10-11 a.m. Orchid plants from public accepted for judging competition. Registration of plants: Fri. Apr. 3, 3-9 p.m.

Apr. 5

Tour of Volunteer Garden led by docents discussing vegetables, perennials, and annuals. Meet in patio area, South Coast Botanic Garden, Palos Verdes Peninsula at 2 p.m.

Apr. 5

Convair Garden Club's 37th Rose Show, Casa del Prado, Room 101, Balboa Park, 1-4:30 p.m.

Apr. 10-May 1

Gardens and Landscapes of the Orient Seminar and Tour to Japan, Bangkok, Singapore, Hong Kong, with 5 day extension to China (Optional). Information: M & W Landscape (619) 727-3037 or Human Relations Intergroup (800) 221-1255.

Apr. 11, 12

The Rancho Santa Fe Garden Club's Annual Flower Show and Plant Sale, "Fiesta de Las Flores", at the Garden Club on La Granada and Avenida Acacias. Sat: 1-5 p.m., Sun: 10-5 p.m. Info: Joan Hamrick 756-2758. Free.

Apr. 11, 12

Amayyllis Show sponsored by the Southern California Hemerocallis and Amayyllis Society at Los Angeles State and County Arboretum, Arcadia. Sat: 12-4:30 p.m., Sun: 9-4:30 p.m.

Apr. 11, 12

San Diego Rose Society's 60th Show at Balboa Park Club, Balboa Park. Admission \$1.50. Sat: 2-6 p.m., Sun: 10-5 p.m.

Apr. 12

Slide show of gardens around the world by Lorena Bach. South Coast Botanic Garden, Palos Verdes Peninsula, 2 p.m.

HORTICULTURE CALENDAR

Apr. 18, 19

Exotic Plant Society's 9th Annual Show, Casa del Prado, Room 101, Balboa Park. Sat: 11-4:30 p.m., Sun: 11-4:30 p.m. Free.

Apr. 18, 19

Eighth Annual Show by the Shonin Bonsai Society of Southern California, Los Angeles State and County Arboretum, Arcadia. Sat: 9-4 p.m., Sun: 9-4:30 p.m.

Apr. 18, 19

San Fernando Valley Rose Society's Annual Rose Show, "Salute to the National Flower". Descanso Gardens, La Canada Flintridge. Miniature and cut roses for sale. Sat: 1-4:30 p.m., Sun: 9-4:30 p.m. Amateur growers may bring flowers Sat. 6:30-10 a.m. for display.

Apr. 24, 25, 26

San Diego Home/Garden Spring Show at Del Mar Fair Grounds.

Apr. 25, 26

San Diego-Imperial County Iris Society's 22nd Annual Show and Sale, Casa del Prado, Room 101, Balboa Park, Sat: 12:30-5 p.m., Sun: 11-5 p.m. Free.

Apr. 25, 26

Coronado Floral Associations's 62nd Annual Flower Show and Garden Show, "Seasons". Spreckels Park, Orange Avenue between 6th and 7th Street, Coronado. Sat: 1-5 p.m. Entertainment and instructional exhibits begin at 2:00 p.m. Plant sale 8-5 p.m. Sat. Sun: 10-4 p.m. Entertainment and instructional exhibits begin 11:00 a.m. Presentation of trophies 3 p.m. Sale of cut flowers 4:00 p.m. Free parking. Admission: Adults \$1.50, Children \$.25.

Apr. 25, 26

"Golden Anniversary" Rose Show hosted by the Pacific Rose Society. Los Angeles State and County Arboretum, Arcadia. Hybrid tea and miniature rose plants plus bouquets of flowers for sale. Rosarians will answer visitors' questions. Sat: 1-4:30 p.m., Sun: 9-4:30 p.m.

May 2

La Jolla Garden Club's Annual Flower Festival and Plant Sale, San Diego Trust and Savings Bank parking lot, 7733 Girard, La Jolla. Timed for Mother's Day and Spring planting. Sat: 9-2 p.m.

May 2, 3

Epiphyllum and Fuschia Show at the Wild Animal Park sponsored by the San Diego Epiphyllum society and the San Diego County Branch of the National Fuschia Society. 9-5 p.m.

May 2, 3

Fallbrook Garden Club's 56th Annual Flower Show "Symphony of Flowers" in Bowers Auditorium at Potter Jr. High School, 1743 Reche road, Fallbrook. Sat: 2-8 p.m., Sun: 10-4 p.m. Free. Public may enter exhibits Fri. 7-9 p.m. and Sat. 7-9 a.m. Displays include 4 divisions: Horticulture, Artistic Design, Junior Gardening, and Educational. Trophies and door Prizes awarded 3 p.m. Sunday. Free. Info: (619) 728-0788.

May 2, 3

San Diego Bonsai Club's 22nd Annual Show, Casa del Prado, Room 101, Balboa Park, 11-5 p.m. Free.

May 7-16

Tulip Time Tour escorted by Cheryl Hedgpeh. Info: (619) 299-3010.

May 10

14th Annual Mother's Day Show by the San Diego Epiphyllum Society at Casa del Prado, Room 101, Balboa Park, San Diego. Hundreds of blooms, educational exhibits, cutting sale. Members will give advice on potting, growing from seed as well as cuttings, and will answer questions. 10:30-4:30 p.m. Free.

May 12-16

American Horticultural Society's 42nd Annual Meeting at the Omni Park Central Hotel, New York City. Behind-the-scenes tour of New York Botanical Garden and Brooklyn Botanic Garden are planned. Emphasis on urban gardening. Info: write to AHS Annual Meeting, P.O. Box 0105, Mount Vernon, VA 22121, or call (703) 768-5700.

May 13

May Meeting and Mini-Show of Epiphyllums at Casa del Prado, Room 101, Balboa Park. Informal showing of blooms by members. Cuttings and small plants available. Visitors welcome. Free. 7:30 p.m.

May 16, 17

San Diego Geranium Society's 15th Annual Show and Sale, Room 101, Casa del Prado, Balboa Park. Sat: noon-5 p.m., Sun: 10-5 p.m. Free.

May 16-30

England Spring Garden Tour with San Diego Home and Garden. Includes Chelsea Flower Show in London. (619) 239-9973.

May 22, 23, 24

National Fuchsia Society '87 Convention at Pea Soup Andersen, Palomar Airport Road, Carlsbad, CA. Registration 10 a.m. Fri., 22nd. Tour of local gardens, seminars, etc. Info: Fred Stevens (619) 278-9495, or Linda Weems, 19691 Matsonia Lane, Huntington Beach, CA 92646.

May 22, 23, 24

Fuchsia Show at Carlsbad Mall, Highway 78 between I-5 and Vista. 10-5 p.m.

May 23, 24

Balboa Park Bromeliad Study Group Show and Plant Sale to benefit the "Leonard Kent Bromeliad Garden" at the San Diego Zoo. Casa del Prado, Room 101, Balboa Park, 11-4:30 p.m. Free.

May 30, 31

Heartland African Violet Society's 6th Show, Casa del Prado, Room 101, Balboa Park. Sat: 1-5 p.m., Sun: 11-5 p.m. Free.

May 30, 31

San Diego Botanical Garden Foundation's Annual Plant Sale. Casa del Prado Patio, Balboa Park, 10-5 p.m.

June 6, 7

San Diego Cactus and Succulent Society's Show and Sale, Casa del Prado, Room 101, Balboa Park. Sat: 1-5 p.m., Sun: 10-5 p.m. Free.

CALIFORNIA GARDEN (USPS 084-020)
San Diego Floral Association, Inc.
Casa del Prado, Balboa Park
San Diego, CA 92101-1619, USA

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SAN DIEGO, CA 92108**

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Friday March 13. Show Preview. 7 PM to 10 PM
Saturday March 14. 9 AM to 9 PM
Sunday March 15. 9 AM to 5 PM

FOR QUESTIONS CALL OR WRITE:

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1602 SVEA COURT
LEMON GROVE, CA 92045
(619) 461-4915

